

Welcome to the NOAA office in Woods Hole



Woods Hole, Massachusetts

What is a marine mammal?

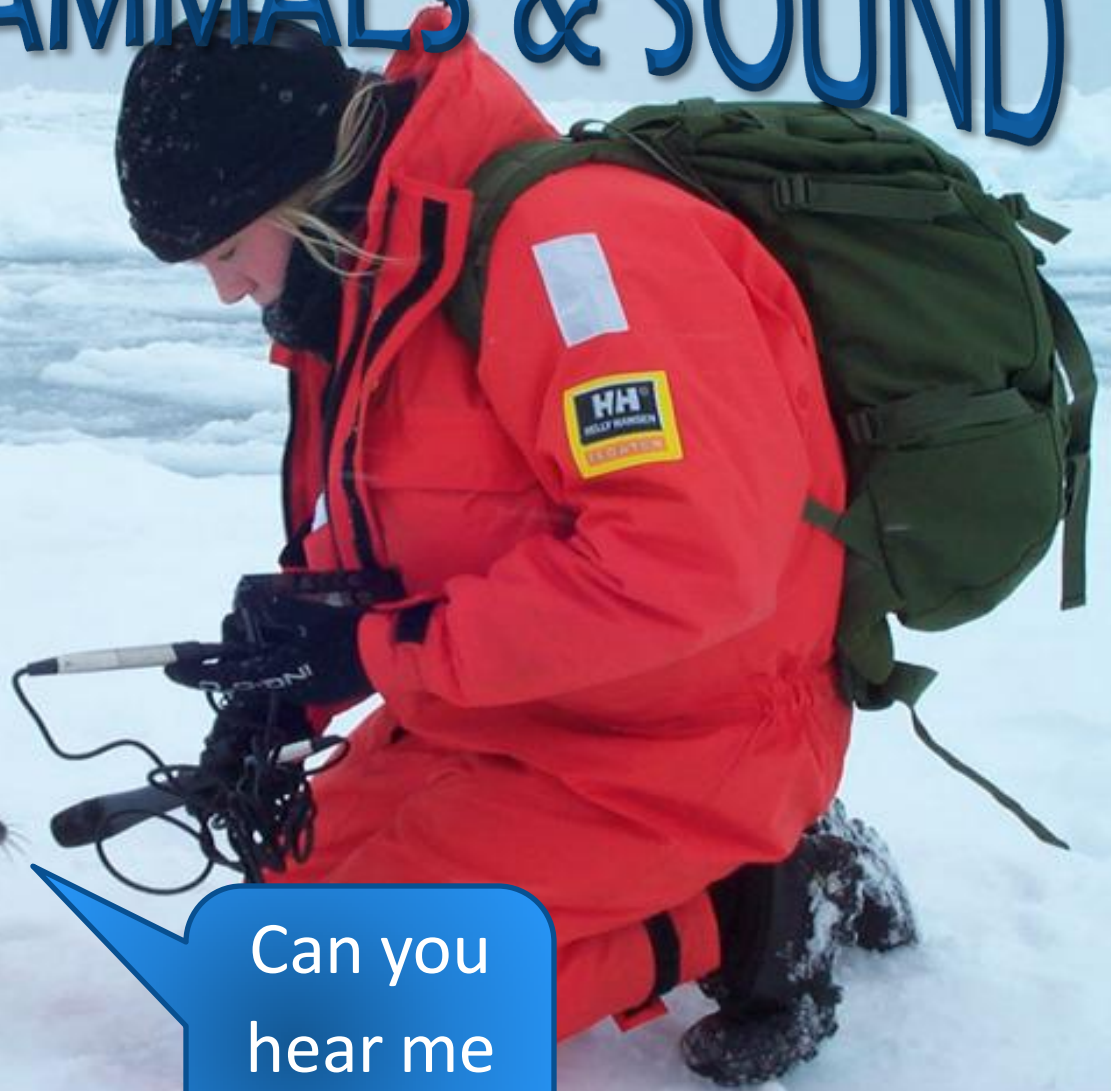
Mammals adapted for life in the marine environment



Sirenians
(manatees, dugongs)



MARINE MAMMALS & SOUND



Can you
hear me
now?

Introduction: Sound

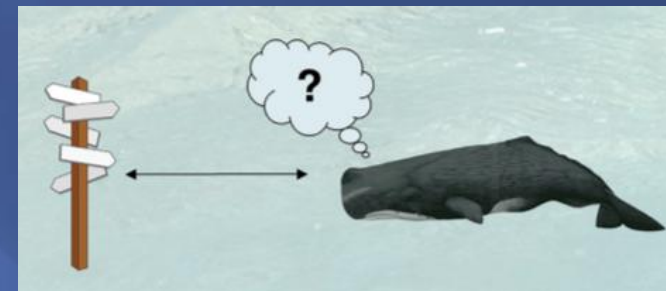
Most marine mammals use sound for:



Foraging/Echolocation



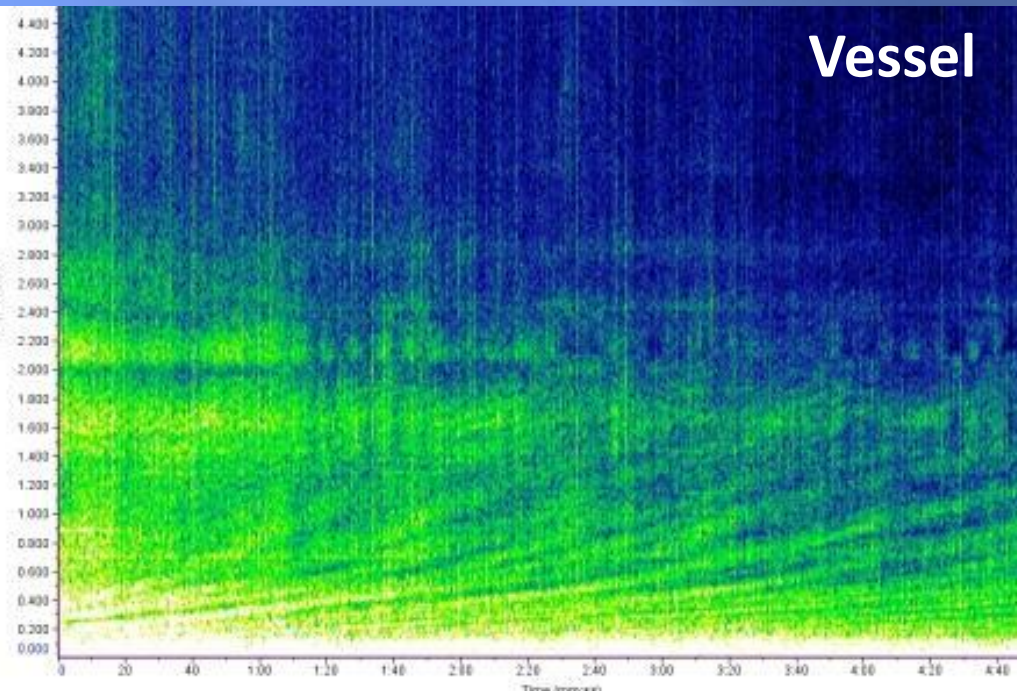
Communication



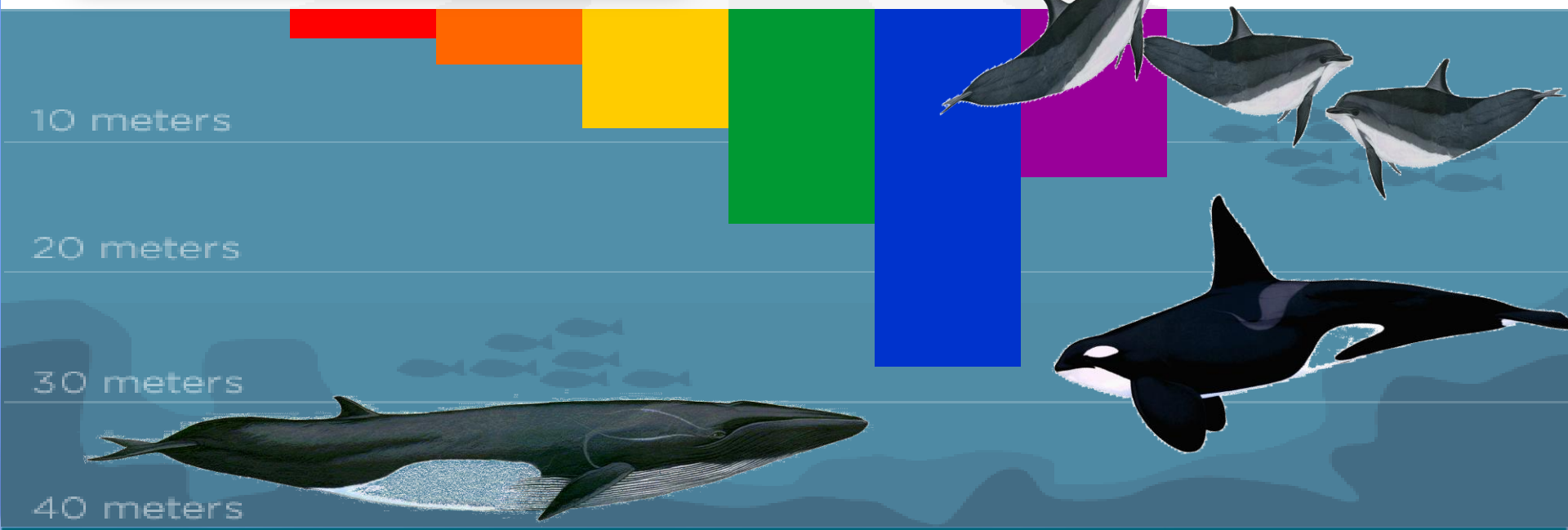
Navigation

Sound travels 4.5 times faster under water than in air

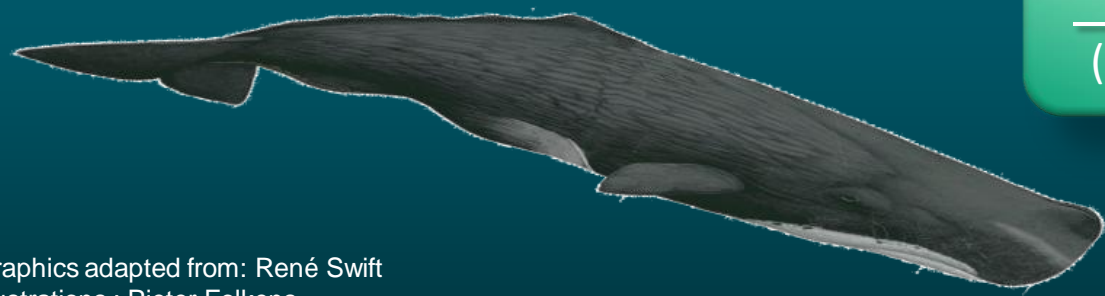
Ship Noise for Blind Find



All light is absorbed within 200 m of the ocean's surface



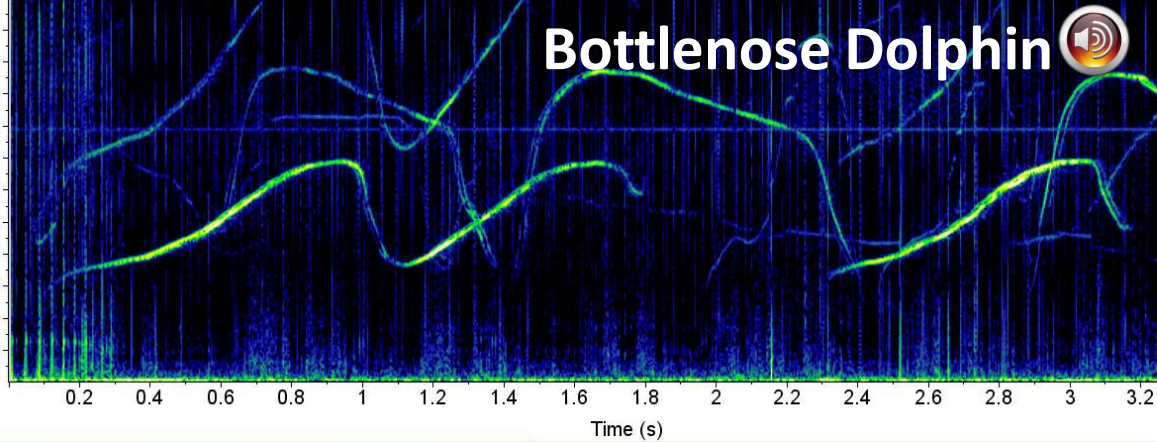
Sound travels 5 times faster in
water than in air
 (1500m/s) (340m/s)



Bottlenose Dolphin



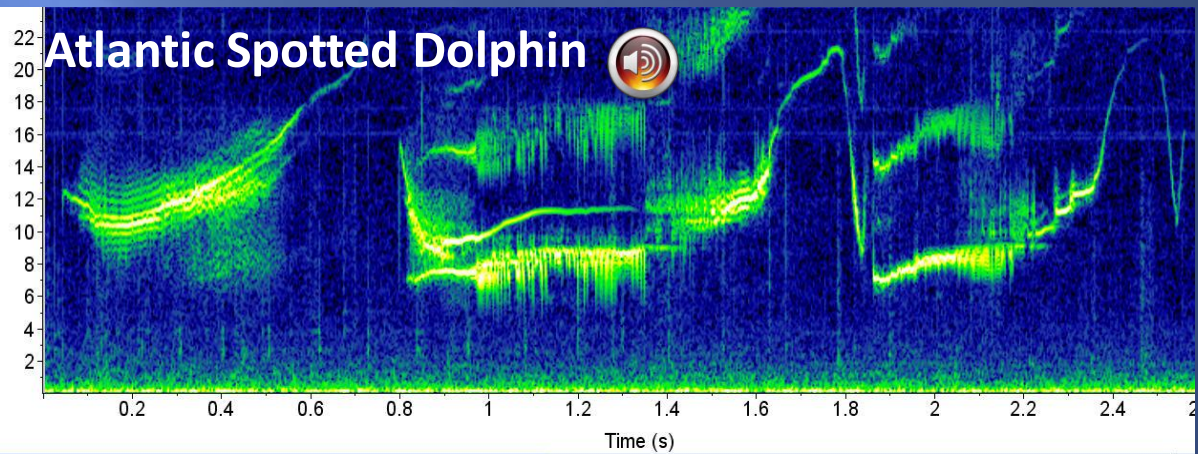
Frequency (kHz)



Atlantic Spotted Dolphin



Frequency (kHz)



Humpback Whale

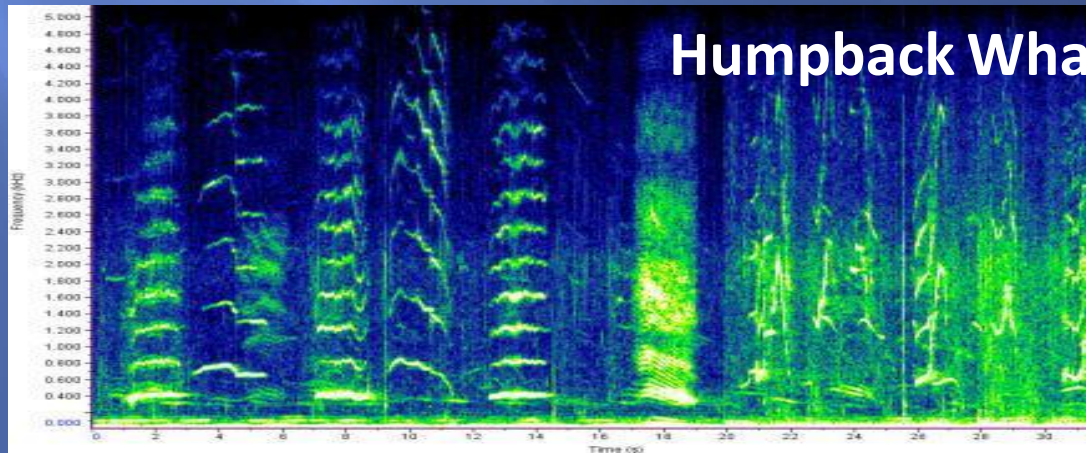


Photo: Sergio Martinez Aguilar

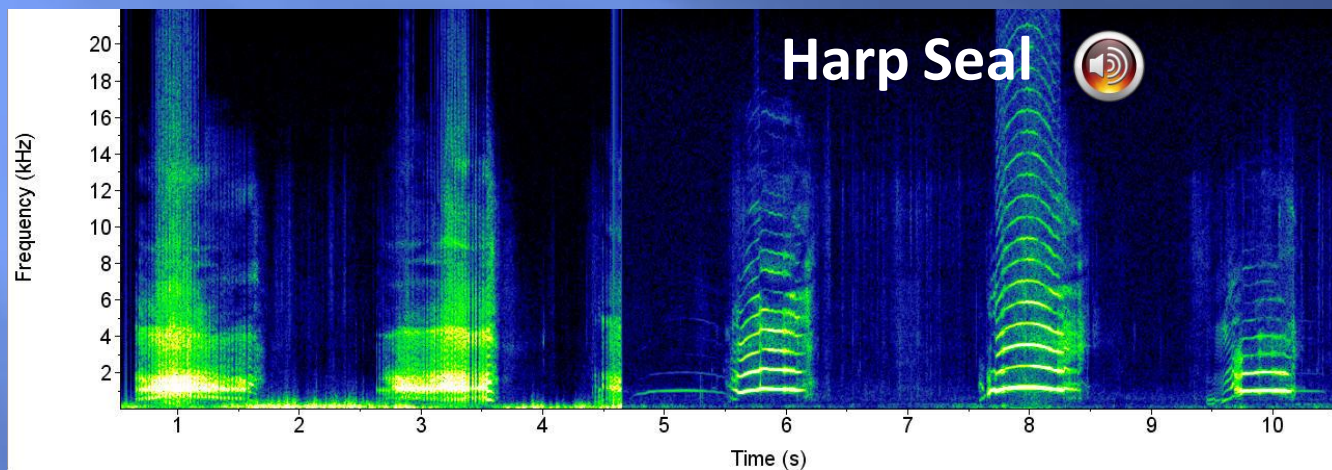
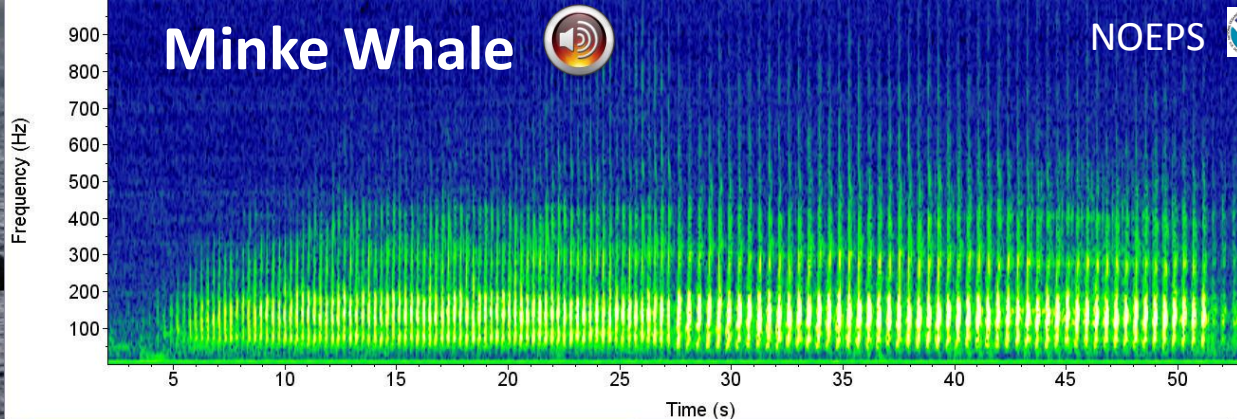


Photo: Hans Wolkers

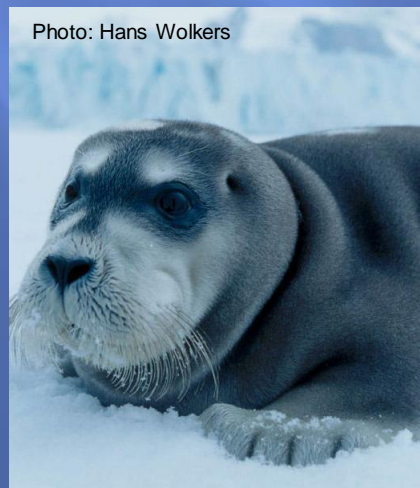
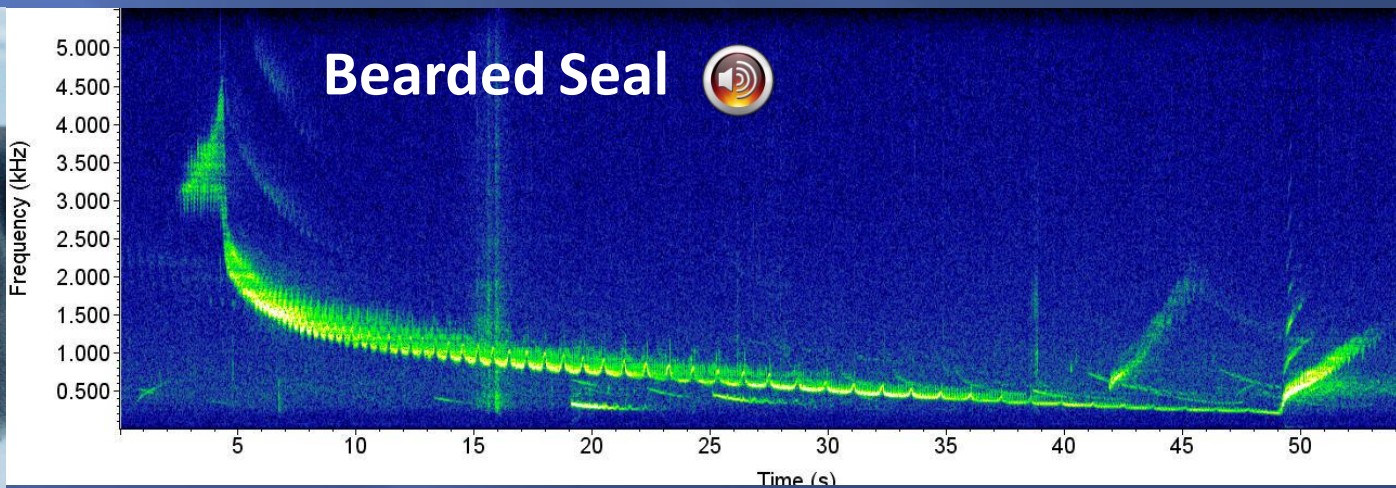
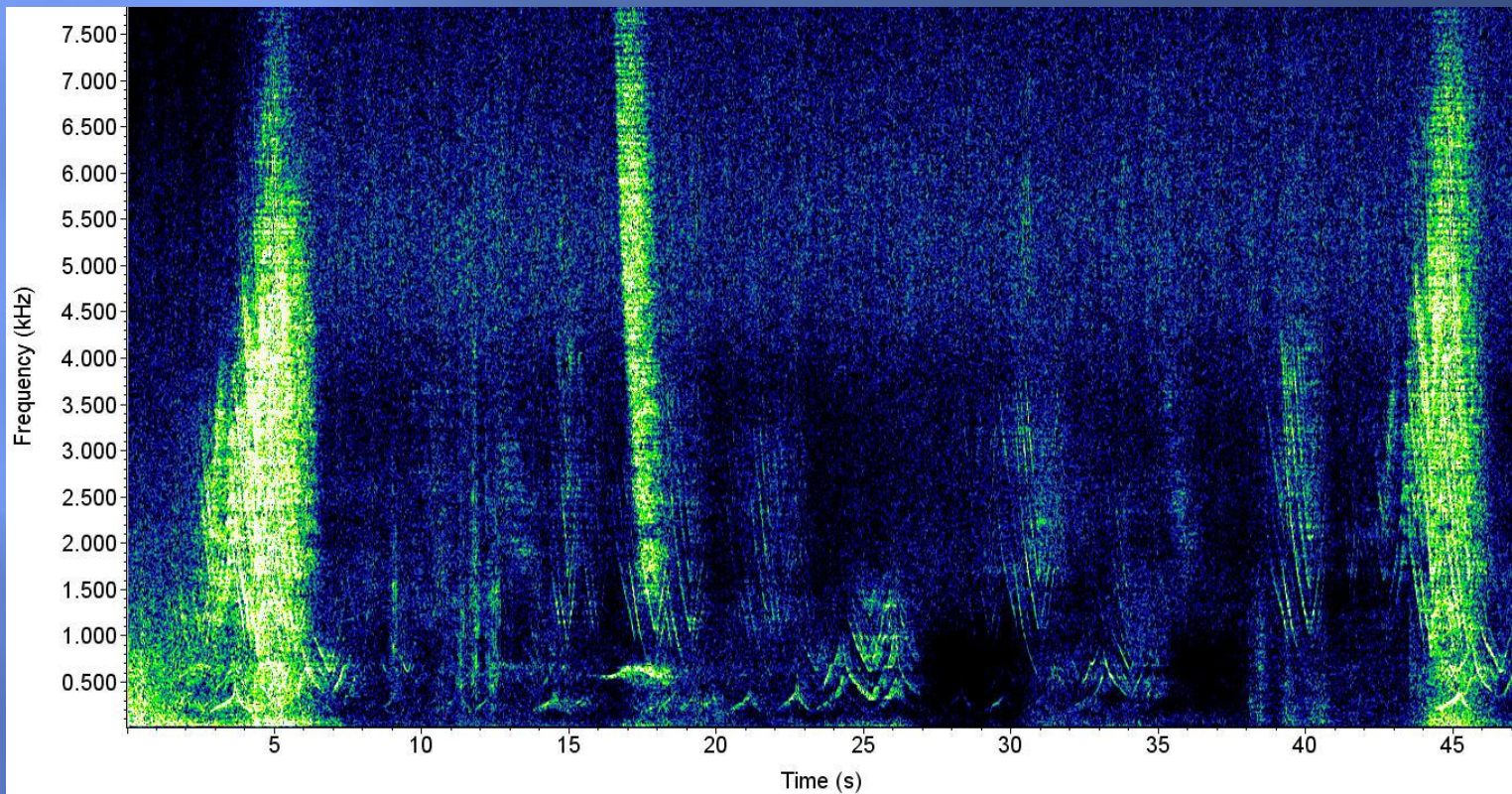


Photo: Hans Wolkers



WHAT AM I?



WHO THINKS I AM A...



DOLPHIN



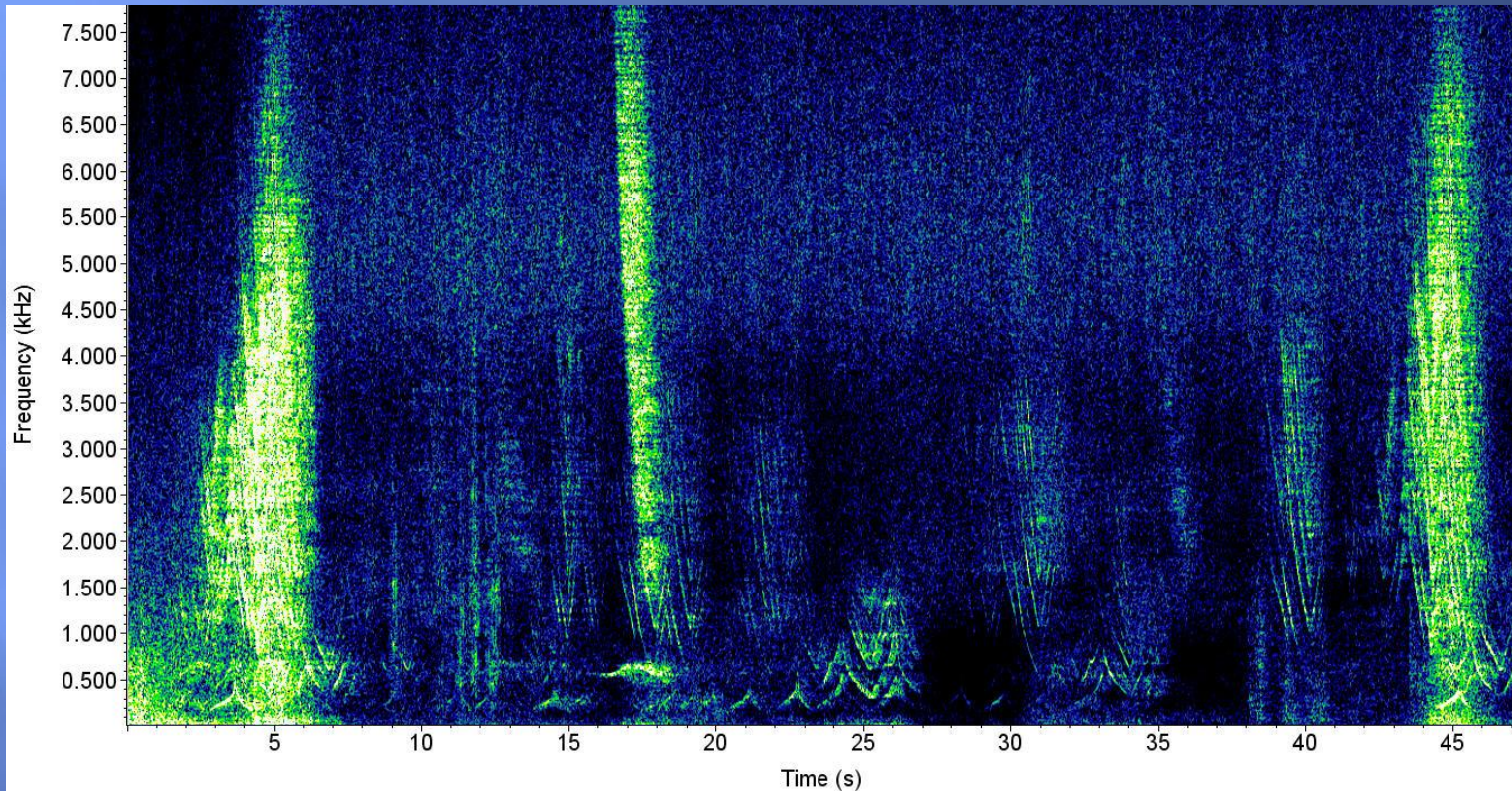
WHALE



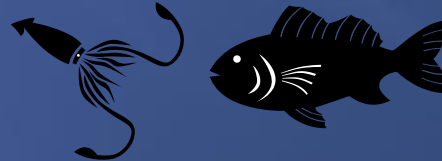
SEAL



WHAT AM I?



❖ This animal eats squid and fish



❖ Adults grow up to 8 feet and weigh up to 440 pounds



❖ They are found around Antarctica



WHO THINKS I AM A...

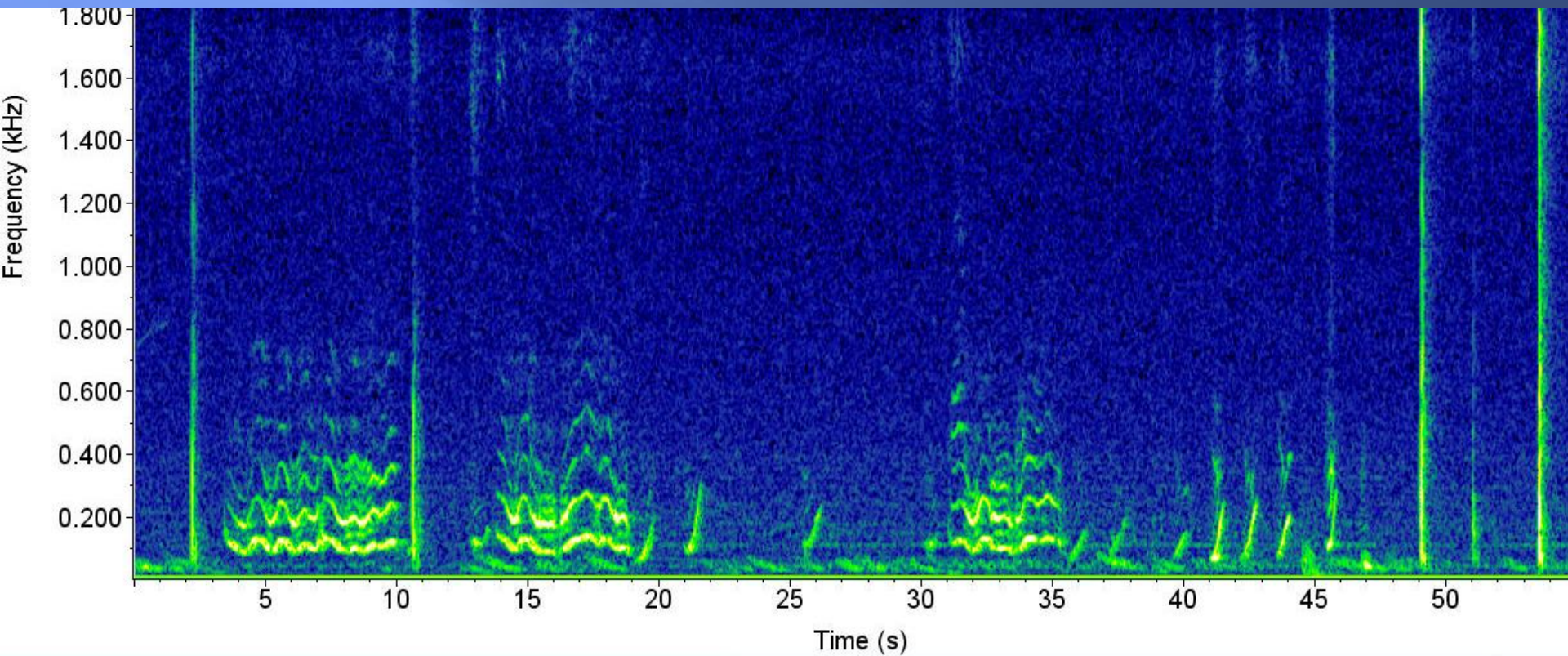


I AM A...



ROSS SEAL

WHAT AM I?



WHO THINKS I AM A...



DOLPHIN



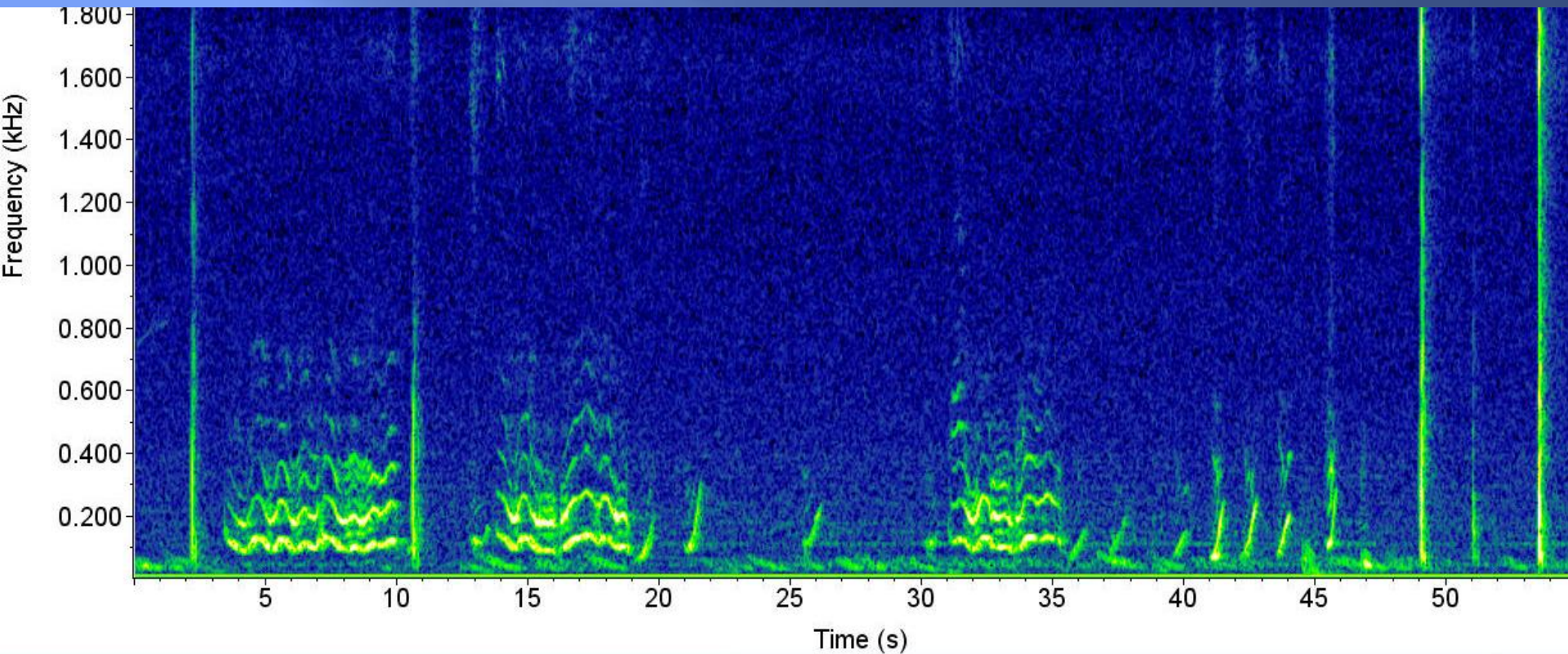
WHALE



SEAL



WHAT AM I?



❖ This animal eats tiny zooplankton, primarily copepods



❖ Adults grow up to 55 feet and weigh up to 70 tons



❖ Now highly endangered, their name comes from the reason they were hunted in such high numbers

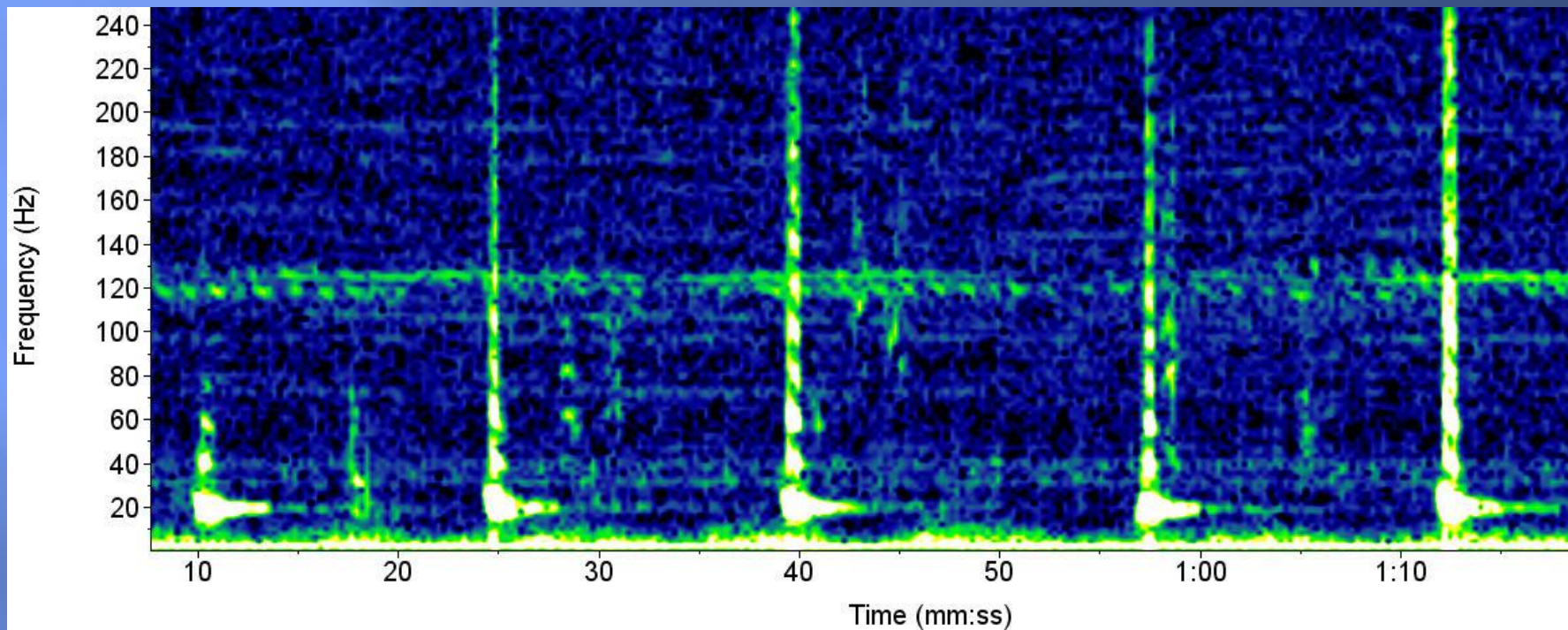
WHO THINKS I AM A...



I AM A...



WHAT AM I?



WHO THINKS I AM A...



DOLPHIN



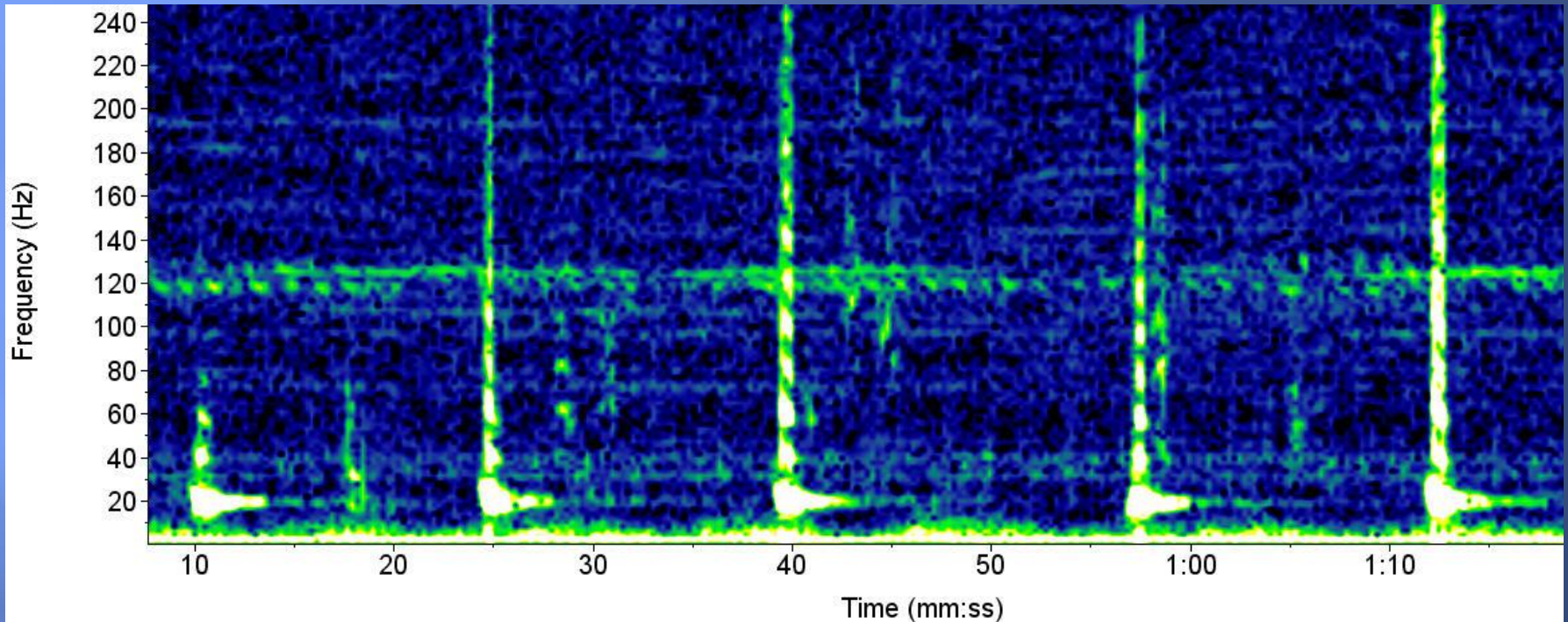
WHALE



SEAL



WHAT AM I?



❖ This animal eats schools of krill, small fish, or squid by lunging into them

❖ Adults grow up to 85 feet and weigh up to 80 tons



❖ They make some of the loudest vocalizations in the ocean (up to 186 dB!)

WHO THINKS I AM A...



SPERM WHALE



HARBOR SEAL



FIN WHALE

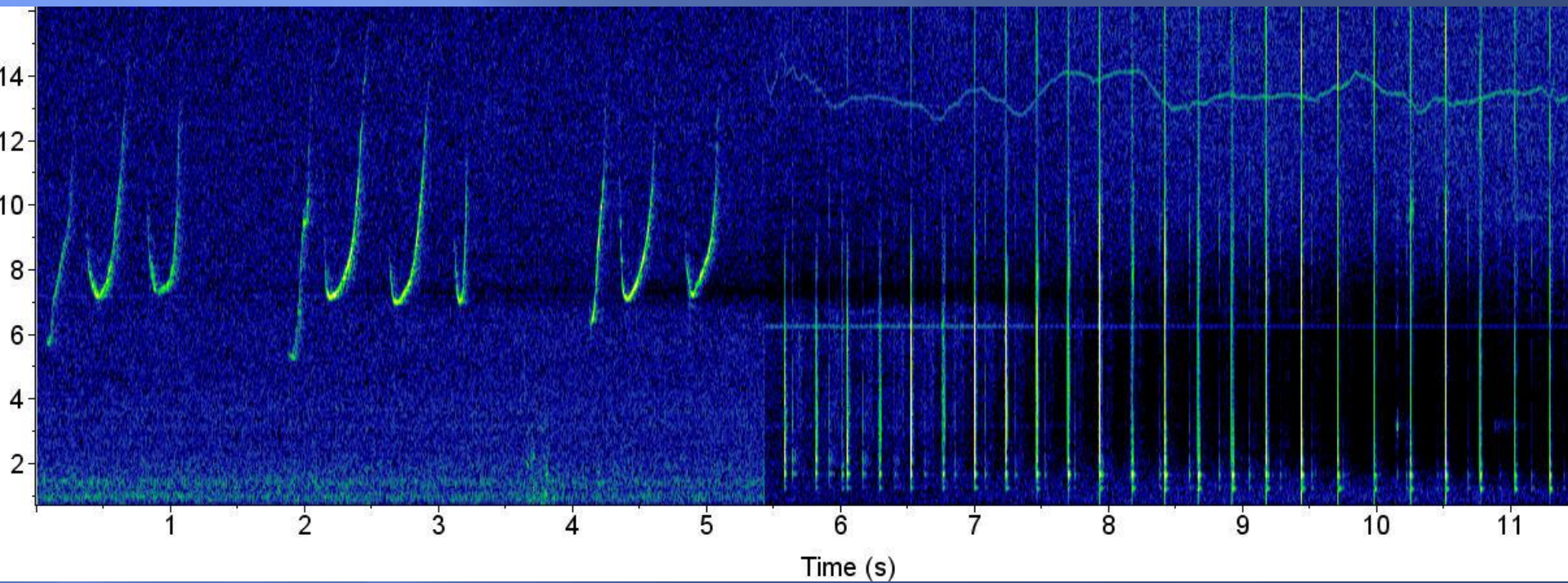


I AM A...



FIN WHALE

WHAT AM I?



WHO THINKS I AM A...



DOLPHIN



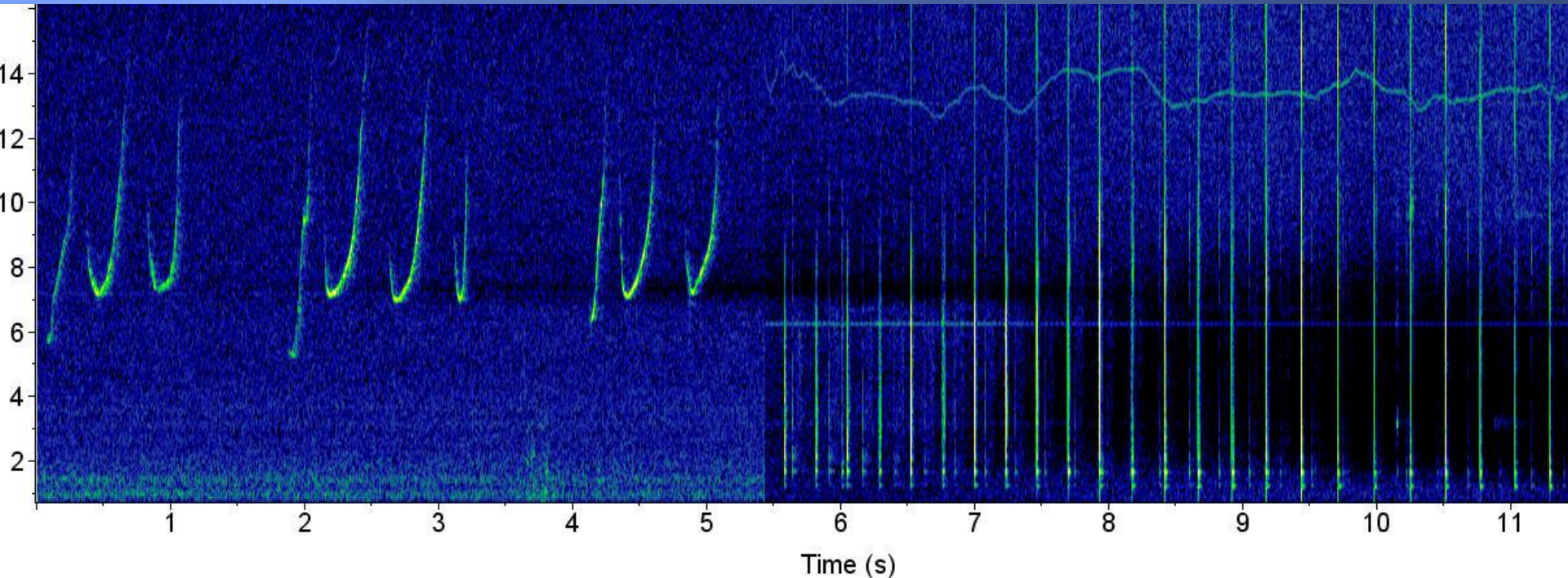
WHALE



SEAL



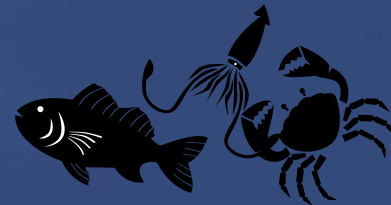
WHAT AM I?



❖ This animal eats a variety of fish, cephalopods, and crustaceans

❖ Adults grow up to 10 feet and weigh up to 770 pounds

❖ Their scientific name *Lagenorhynchus* is derived from the Latin word *lagenos* for “bottle” and *rhynchos* for “beak”



WHO THINKS I AM A...

Photo: Mingan Island Cetacean Study



DOLPHIN



SEAL



HUMPBACK WHALE



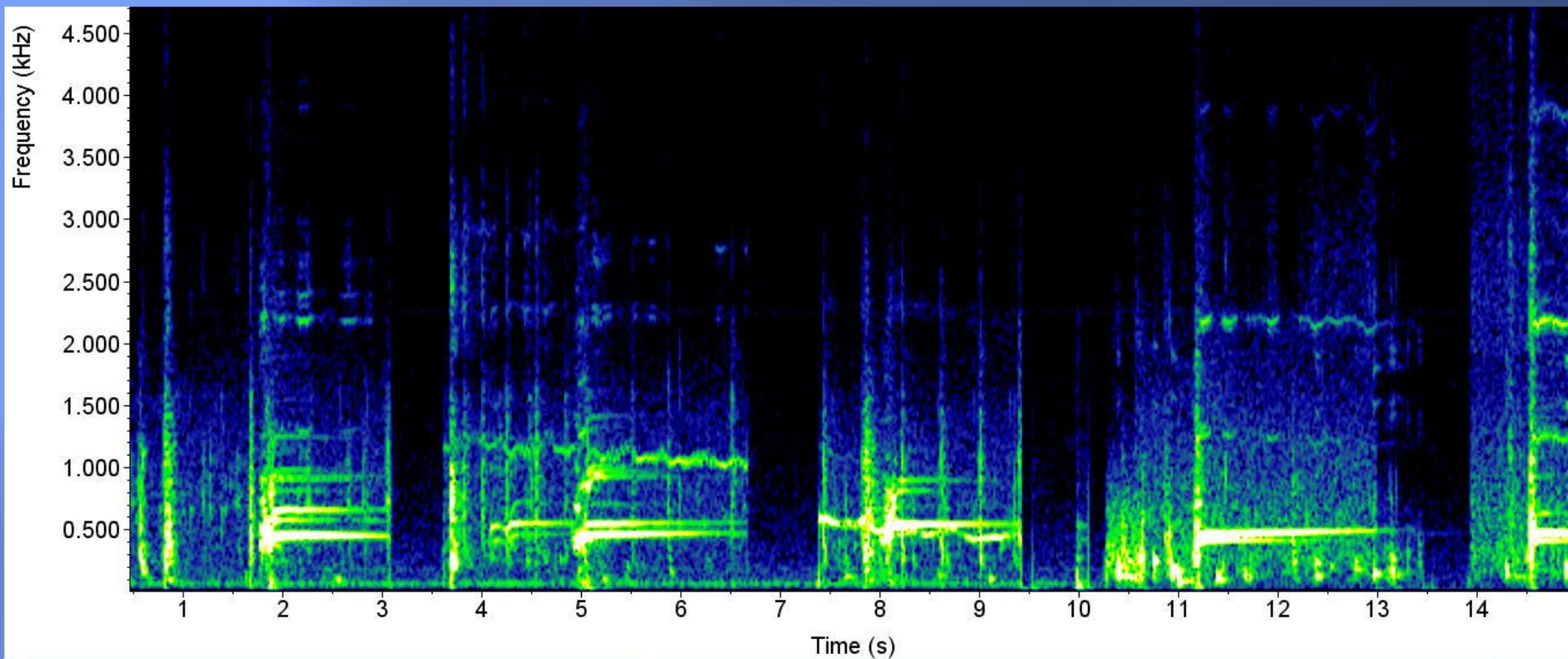
I AM A...

Photo: Mingan Island Cetacean Study



WHITE-BEAKED DOLPHIN

WHAT AM I?



WHO THINKS I AM A...



DOLPHIN



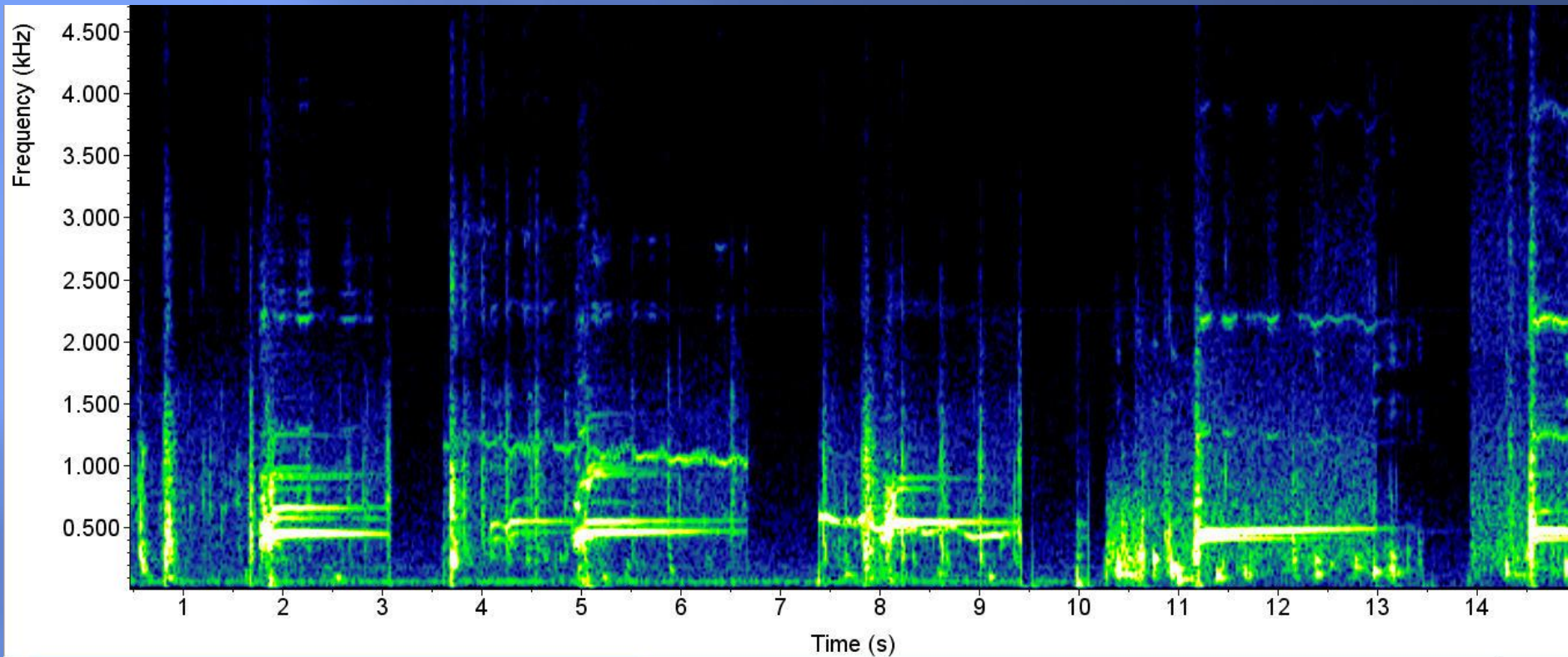
WHALE



SEAL



WHAT AM I?



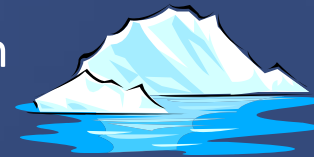
❖ This animal eats mollusks (clams) and other invertebrates



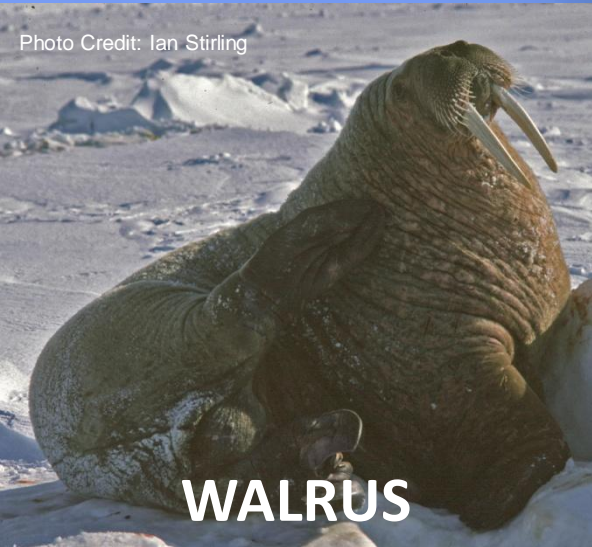
❖ Adults grow up to 10.5 feet and weigh up to 2700 lbs



❖ They rely on thick pack ice for resting and giving birth



WHO THINKS I AM A...



I AM A...

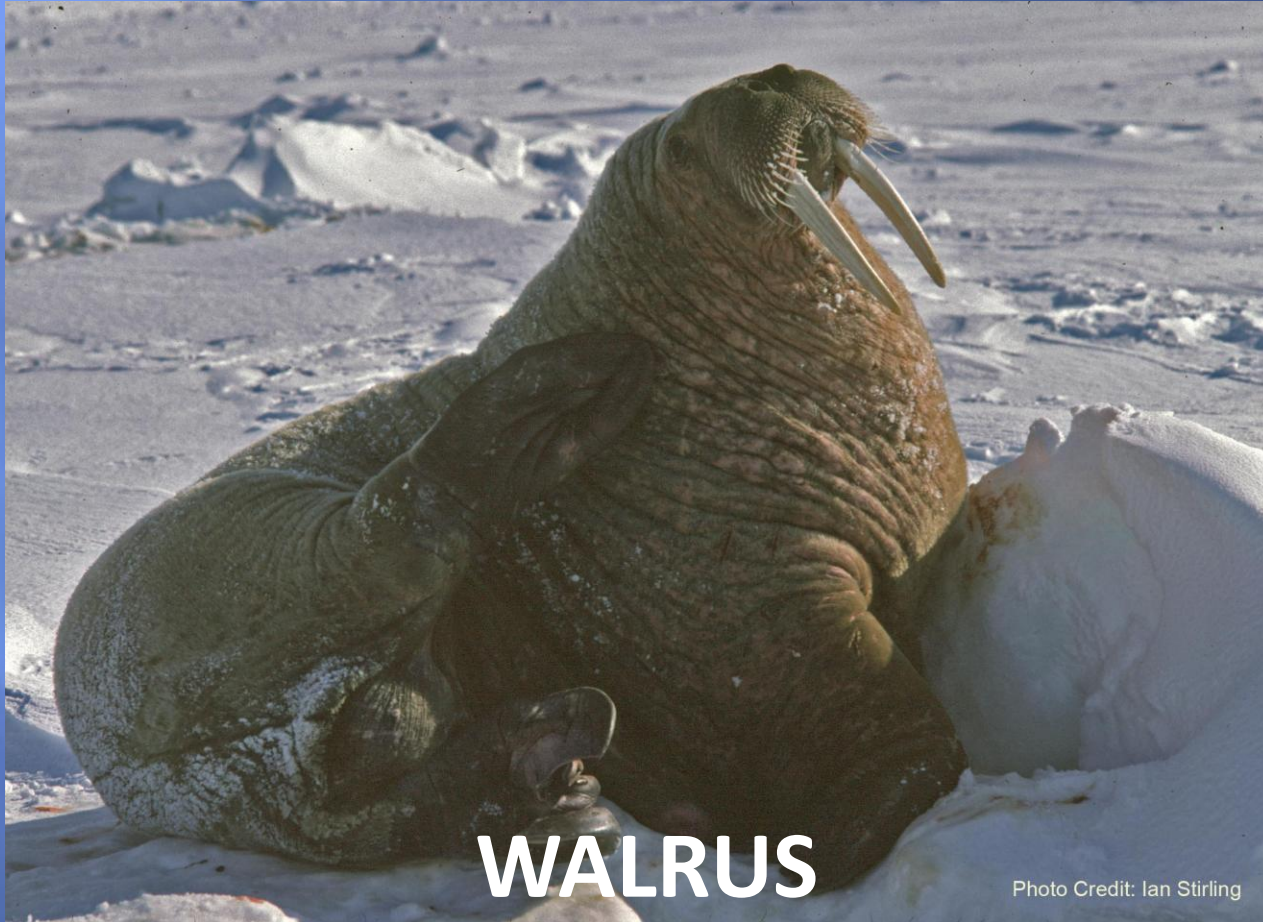
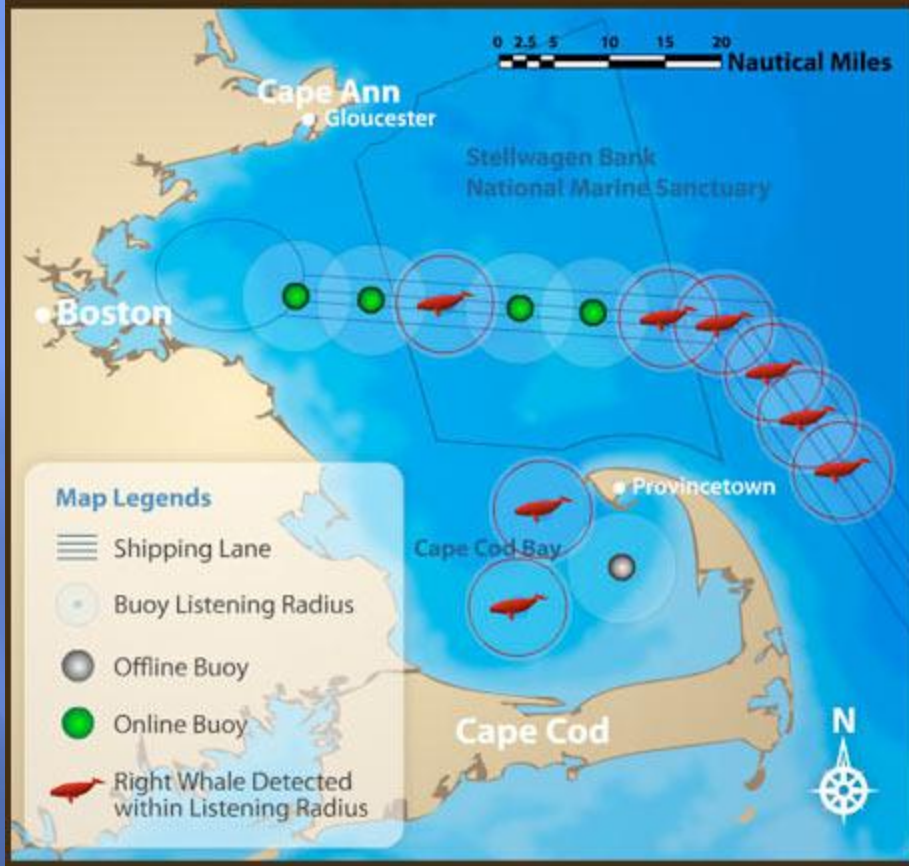


Photo Credit: Ian Stirling

Right Whale Listening Network

368 Right Whale Calls Detected Within 24 Hours.



“Whale Alert” iPad & iPhone app
for mariners :

-receive real-time information on
right whale locations and local
management guidelines

Right Whale Listening Network

You are now an Orca



Photo Credit: Andy Foote

Threats to Marine Mammals: *Sound*

1. Hearing loss or injury
2. Change in behavior
3. Prevent animals from hearing important sounds



How can we help?

- ▣ Don't litter



- ▣ Recycle

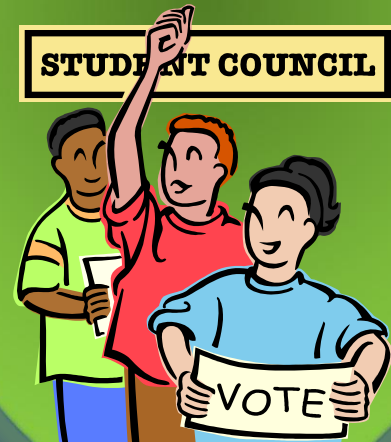


- ▣ Buy eco-friendly products



- ▣ Conserve

Spread
the word



As Scientists...



Scientist Spotlight

Our very own PSB scientist...

Sofie Van Parijs looks at sound in the ocean. She looks at what species are making sounds in the ocean and where and what they are saying. She also looks at how man made sound affects marine mammals.

